

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
25 August 2005 (25.08.2005)

PCT

(10) International Publication Number  
**WO 2005/078127 A1**

(51) International Patent Classification<sup>7</sup>: C12Q 1/68,  
A61K 48/00, C12N 9/08

(21) International Application Number:  
PCT/FI2005/050031

(22) International Filing Date: 11 February 2005 (11.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
20040227 13 February 2004 (13.02.2004) FI

(71) Applicant (for all designated States except US): OY JU-  
RILAB LTD [FI/FI]; Microkatu 1, FI-70210 Kuopio (FI).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SALONEN, Jukka,  
T. [FI/FI]; Honkasaarentie 14, FI-70100 Kuopio (FI).  
KAIKKONEN, Jari [FI/FI]; Viikatekuja 10, FI-70780  
Kuopio (FI). MARCHESANI, Marja [FI/FI]; Linnoituk-  
sentie 10 E 039, FI-00940 Helsinki (FI). PIRSKANEN,  
Mia [FI/FI]; Neulastie 2 B 18, FI-70210 Kuopio (FI).  
TUOMAINEN, Tomi-Pekka [FI/FI]; Louhikonkatu 35,  
FI-70800 Kuopio (FI). UIMARI, Pekka [FI/FI]; Kale-  
valankatu 18 A 3, FI-70500 Kuopio (FI). VILPPU, Teemu  
[FI/FI]; Annikintie 6 A 14, FI-70500 Kuopio (FI).

(74) Agent: OY JALO ANT-WUORINEN AB; Iso  
Roobertinkatu 4-6 A, FI-00120 HELSINKI (FI).

(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments
- with sequence listing part of description published sepa-  
rately in electronic form and available upon request from  
the International Bureau

For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR DETECTING THE RISK OF CANCER, CORONARY HEART DISEASE, AND STROKE BY  
ANALYSING A CATALASE GENE

(57) Abstract: The present invention relates to variants in the catalase gene. The invention provides a method of identifying sub-  
ject's susceptibility or predisposition to or risk of developing cancer, cancer death, CHD, and/or cerebrovascular stroke by detecting  
gene polymorphisms and other gene mutations in a biological sample from the subject. The invention also relates to a test kit and  
software for accomplishing the method. In addition, the invention provides a method for treating or preventing a human or animal  
suffering from cancer, CHD or cerebrovascular stroke, said method comprising a therapy enhancing catalase availability, production  
or concentration of the human subject or animal.

WO 2005/078127 A1